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The Law Commission's Recommendation on Expert Opinion Evidence: Sufficient reliability?

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Summary

In March 2011 the Law Commission published 'Expert Evidence in Criminal Proceedings in England and Wales' (Law Com No 325). The Commission's report provides a considered analysis of the difficulties facing expert opinion testimony and makes numerous recommendations. A salient recommendation is that opinion evidence only be admitted where 'sufficiently reliable'.

This article tentatively suggests 'sufficient reliability' may be a somewhat dilute test if implemented in terms suggested by the Commission. It is further suggested the Commission's recommendations perhaps fail to persuade that they are the best solution to problematic cases identified within the report.

Contents

Introduction

Recommendation: the current common law threshold standard is retained

Recommendation: help is necessary on how to assess sufficient reliability

Recommendation: reliability is assessed by a three stage process which, in turn, is guided by criteria

The effect of the proposal
Dallagher [2003] 1 Cr App R 12 CA
Harris [2006] 1 Cr. App. R. 5 CA
Conclusion on *Dallagher* and *Harris*.
Clark (Sally) (No. 2) [2003] 2 FCR 447 CA
Cannings [2004] EWCA Crim 1 CA
Conclusion
Bibliography

Introduction

In April 2009 the Law Commission published the consultation paper 'The Admissibility of Expert Evidence in Criminal Proceedings' (Law Com No 190). After a thorough consultation the Commission published their recommendations in March 2011: 'Expert Evidence in Criminal Proceedings in England and Wales' (Law Com No 325). The Commission's papers provide a considered and detailed analysis of the problems facing expert opinion testimony.

The Commission propose that opinion evidence be admissible only if 'sufficiently reliable'. Reliability, in turn, is determined by analysing forensic disciplines against identified criteria. The criteria seek to ensure that the discipline is objectively valid and correctly applied to the facts of the case. This article tentatively suggests that a discipline's 'objective reliability' may be presumed more readily than the author had previously envisaged (Wilson, 2010). This strengthens the Commission's proposal in the sense that difficulties defining 'good' and 'bad' science are largely ameliorated. One concern is that such amelioration may have the effect of making the Commission's proposal largely superfluous. In suggesting this conclusion four problematic cases, identified by the Commission, will be considered.

Recommendation: the current common law threshold standard is retained

Moses LJ has recently noted that common law tests, for admission of expert testimony, may be laissez faire: *Henderson* ([2010] 2 Cr App R 24 CA at [206]). This accords with the Commissions' views (Law Com No 325; 1.8). The Commission propose that expert opinion evidence be admissible only if 'sufficiently reliable' (Law Com 190;1.5; 1.10; 6.10; 6.26. Law Com 325; 3.36).

The first observation is that the threshold for admission of expert opinion evidence is not becoming any more onerous. Thomas L.J. has, on at least four occasions, recently indicated that 'sufficient reliability' is the common law threshold for admission: *Reed and Reed* [2010] 1 Cr App R 23 CA at [111], *Weller* [2010] EWCA Crim 1085 CA at [34] [37], *Broughton* [2010] EWCA Crim 549 CA at [36-37], *T* [2011] 1 Cr App R 9 CA at [86]. The Commission suggest that the admissibility threshold is neither changing nor becoming more draconian (Law Com 190; 1.5).

Recommendation: help is necessary on how to assess sufficient reliability

The Commission's proposal suggests that advocates and the judiciary are, on occasion, failing to ensure sufficient reliability as a precursor to admission of evidence. The Commission's emphasis is upon how the threshold of evidentiary reliability is determined (Law Com 190; 1.5). In one sense the Commission's proposal is educative, seeking to furnish lawyers with a methodology by which reliability may be divined.

The professional bodies themselves accept that assistance is needed. The Commission's proposal is supported by the Rose Committee of the Senior Judiciary, the Council of HM Circuit Judges, the Bar Law Reform Committee, the Criminal Bar Association, the Law Society, The Crown Prosecution Service, the Justices' Clerks' Society and the Criminal Cases Review Commission (Law Com 325; 3.14). The Criminal Bar Association noted that:

current treatment of expert evidence...has contributed to a significant number of miscarriages of justice, risks continuing to do so, and requires urgent reform (Law Com 325; 1.18; 3.24)

In one sense this is perplexing as the Bar is largely responsible for the 'current treatment' of opinion evidence. Two years have expired since the Commission's consultation paper was released. Given that professional bodies were cognisant of shortcomings it remains unclear as to why training has not already been put in place. General Patton's dictum that a good plan violently executed now is better than a perfect plan executed next week springs to mind. Training, now, may be preferable to the allure of remedy by law reform in the future.

Recommendation: reliability is assessed by a three stage process which, in turn, is guided by criteria

The Commission propose 'sufficient reliability' be assessed by a three stage process. First, the evidence must be predicated on sound principles, techniques and assumptions. This represents an objective assessment of the discipline, independent of the context of the case. Second, those principles, techniques and assumptions must have been properly applied to the facts of the case. This requires a case-specific assessment. Finally, the evidence should be supported by those principles, techniques and assumptions as applied to the facts of the case. The third limb requires assessment as to whether the expert's case-specific conclusion was appropriate given the discipline's objective validity and the subsequent application to the case (Law Com No 190; 6.10; Law Com No 325; 1.32; 3.6). It has been noted the simplicity of this wording is deceptive and the Report takes more than fifty pages to explain how this will work (Editorial, 2011, 432).

The objective assessment of the discipline is undertaken by recourse to a series of criteria against which the discipline is judged (Law Com 190; 6.26). At the consultation stage two sets of criteria were proposed; one for purportedly scientific evidence and one for experience based testimony (Law Com 190; 6.26 and 6.35). As a result of feedback, and analysis, the Commission's final recommendation is for a single set of criteria pertaining to all disciplines (Law Com 325; 1.40).

At the consultation stage the Commission proposed that some disciplines may be accepted via judicial notice (Law Com 190; 6.17). The final paper rejected use of judicial notice preferring, instead, that the reliability test will only be invoked if it appears, to the court, that the evidence might be insufficiently reliable (Law Com 325; 1.39). In most cases where opinion evidence is tendered admissibility will now be presumed without the need to refer to the guidelines (Law Com 325; 1.51).

The effect of the proposal

During consultation, and in their final paper, the Commission identify four cases where expert testimony has been problematic (Law Com 190; 2.14-2.24; Law Com 325; Part 6). The Commission accept they cannot provide an 'absolute guarantee' that their proposal, if it was in force, would have prevented admission of unreliable evidence (Law Com 325; 8.6). Notwithstanding this initial concession the Commission make some fairly robust assertions concerning the effect of their proposal. In relation to the four problematic cases the Commission confidently conclude that if their proposal had been in force 'the problems we identified in those cases... would almost certainly not have occurred' (Law Com 325; 1.3). The identified errors would have been prevented due to a series of possible remedies. First, the Commission consider it 'highly unlikely' that the experts would have wished to give the opinion evidence in question. Some of these experts have decades of experience within leading medical departments. It is not immediately apparent as to why a paragraph, on scientific methodology, would provide an academic rigor previously unavailable to them. Secondly, the Commission suggest the prosecution would probably conclude the testimony should not be tendered for admission. Thirdly, if tendered, reliability would have been scrutinised more effectively prior to trial. The Commission conclude it is 'almost certain' that the unreliable evidence would not have been placed before the jury (Law Com 325; 8.6).

A number of consultees wondered whether the Commission's response would have excluded the unreliable evidence in the cases referred to in their paper (Law Com 325; 3.32). In addressing this issue it is necessary to identify exactly what element of the 'unreliable evidence' the Commission foresee being excluded. Each of the four problematic cases will briefly be examined. The cases of *Dallagher* [2003] 1 Cr App R 12 CA, and *Harris*, [2006] 1 Cr. App. R. 5 CA specifically address the question of how extensive, or otherwise, exclusion shall be. The cases of *Clark (Sally) (No 2)* [2003] 2 FCR 447 CA and *Cannings* [2004] EWCA Crim 1 CA analyse whether the Commission's proposal is necessary, or sufficient, to avoid miscarriages. Assessing the effect of future legislation, upon past cases, is a speculative exercise. This article questions whether it is possible to be as certain, as the Commission appear to be, of the curative effects of their proposal.

Dallagher [2003] 1 Cr App R 12 CA

The Commission provide two descriptions of *Dallagher* [2003] 1 Cr App R 12. The final paper describes *Dallagher*'s conviction as being:

based almost entirely on prosecution expert **opinion** [emphasis added] evidence relating to the comparison of an ear-print made by D with a latent ear-print found on a window at the scene of the crime' (Law Com 325; 8.10).

The consultation paper, in contrast, omitted the word ‘opinion’ from the description suggesting the conviction was based ‘almost entirely’ upon both factual and opinion elements of ear print evidence (Law Com 190; 2.14). The consultation offers the more accurate description.

In *Dallagher* [2003] 1 Cr App R 12 there were four elements of factual evidence. First, the defendant lived proximate to the victim [2003] 1 Cr App R 12 CA [at 3]. Secondly, entry had been effected by forcing a transom window [2003] 1 Cr App R 12 CA [at 2]. The defendant had a history of domestic burglaries effected via entering transom windows [2003] 1 Cr App R 12 CA [at 3]. Thirdly, perhaps tellingly, the defendant, whilst imprisoned for burglary, confessed to an informant placed in his cell. The defendant revealed information about the killing, and the murder weapon, in this case a pillow, not in the public domain [2003] 1 Cr App R 12 CA [at 3]. Fourthly, two expert witnesses matched prints from immediately below the forced transom window to the defendant’s ear-prints amongst control prints [2003] 1 Cr App R 12 CA [at 3]. This evidence became more cogent as the window had only been cleaned three or four weeks earlier [2003] 1 Cr App R 12 CA [at 3]. The Commission confirm their proposal does not extend to an expert’s factual testimony (Law Com 325; 2.23) unless there is doubt as to whether the expert was expressing fact or opinion (Law Com 325; 3.39). These elements of evidence would, subsequently, fall outside the Commission’s proposal. The defendant appeared to have no evidence to support his denial of the charges [2003] 1 Cr App R 12 CA [at 4].

In *Dallagher* it cannot be concluded that factual evidence, in isolation, would have substantiated a finding of guilt. Equally, however, the possibility that the jury would have convicted on factual testimony alone cannot be discarded. If factual evidence elicited a guilty verdict then the Commission’s proposal, if implemented, would not have prevented the miscarriage. Given that it is impossible to know whether a jury would have convicted on factual evidence alone *Dallagher*'s opinion evidence aspect shall now be examined. There were only two items of opinion evidence, both in the form of ear-print analysis.

The Commission conclude that ear print opinion evidence relies heavily on subjective factors rather than objectively verified measuring techniques (Law Com 325; 8.11). Ear print evidence rests on poor data and a doubtful hypothesis (Law Com 325; 8.12). Further, there was an insufficient body of research data to support a hypothesis that every human ear leaves a unique print and that identity could ‘**confidently**’ [emphasis added] be determined solely on the basis of ear prints (Law Com 325; 8.11).

The precise terms upon which the Commission object to admission must be noted. When the Commission discuss the ‘unreliable nature of the evidence’ (Law Com 325; 1.4) and the ‘unreliable evidence’ not being placed before the jury (Law Com 325; 8.6) the objection is not to admission of ear print testimony per se. The objection to admission stems not from limb one, the objective validity of the discipline, but limb three, the case specific conclusion given the discipline’s objective evidence base. The concern relates to the expert's certainty of expression given the paucity of research. The Commission acknowledge an expert may be able to express a weaker opinion on the similarities between the latent print and the defendants (Law Com 325; 8.12).

The Commission, correctly, objects to Mr Van Der Lugt’s testimony that he was ‘absolutely convinced’ the print matched the defendant (Law Com 325; 8.10; 8.12). The Commission do not appear to object to Professor Vanezis’s conclusion that it was ‘highly likely’ the print

matched the defendants [2003] 1 Cr App R 12 [at 9] or that there was only 'a remote possibility...that they may have been left by someone else, but it is remote' [2003] 1 Cr App R 12 at [10].

Had the Commission's proposal been in force during *Dallagher's* trial the evidence may have been identical save that one expert would have been obliged to moderate his language from being 'absolutely convinced' the crime scene print matched the defendants to considering it 'highly likely' and only a 'remote possibility' it had been left by someone else.

The Commission conclude that if their proposal had been in force 'the problems we identified in those cases...would almost certainly not have occurred' (Law Com 325; 1.3). It strains credulity to suggest this amendment would 'almost certainly' have prevented the miscarriage. Instead, 'the problem' is the expert expressing themselves imprecisely. The Commission appear to suggest their proposal would have refined one expert's language. Even this is, perhaps, slightly speculative given that, on appeal, Kennedy L.J. concluded 'there is no reason in this case to be critical of the way in which the evidence of the experts was adduced' [2003] 1 Cr App R 12 [at 34]. Kennedy L.J reached this conclusion despite referring to *Daubert* (1993) 509 US 579 upon which the Commission's proposals are based [2003] 1 Cr App R 12 at [29].

It must be conceded that refining an expert's language is preferable to not refining language. *Dallagher*[2003] 1 Cr App R 12 is, however, one of only four cases that the Commission identify as being improved by their proposal. The effect of their proposal seems dilute: it may have made absolutely no difference to the outcome. The Commission's papers are exceptionally significant, and helpful, in showing how lawyers could improve their methodology in respect of forensic evidence. In most contexts if a body became aware of the need for training it would develop pertinent courses, there would be no need to change the law.

Harris [2006] 1 Cr. App. R. 5 CA

The Commission assert that, prior to *Harris*, [2006] 1 Cr. App. R. 5 CA convictions could be secured solely on the triad of intra-cranial injuries as murder 'could confidently, in effect, always be inferred...the accused's exculpatory explanation could be disregarded' (Law Com 325; 8.24). The triad of intracranial injuries consist of encephalopathy (disease affecting brain function), subdural haemorrhages, and retinal haemorrhages. The triad is diagnostic of non-accidental head injury (*NAHI*) [2006] 1 Cr. App. R. 5 CA [at 63].

Professor David notes it is incorrect to assert that experts relied purely upon the triad, as diagnosis assesses the plausibility of the accused's explanation against observed injuries (Expert Evidence Consultation Responses 1.40). *Harris* [2006] 1 Cr. App. R. 5 CA identified two further pieces of circumstantial evidence were often required namely a sole carer and an inadequate history incompatible with the severity of the injuries [2006] 1 Cr. App. R. 5 CA [at 56]. Bruising or broken bones may also be present [2006] 1 Cr. App. R. 5 CA [at 63].

In broad terms the Commission was correct that, in the past, occasionally convictions may have been secured seemingly upon the triad alone. *Harris*, a conjoined appeal concerning the triad, is illustrative. In *Harris* two of the defendant's appeals were upheld [2006] 1 Cr. App. R. 5 CA [at 266]. Rock's murder conviction was replaced with a manslaughter conviction

[2006] 1 Cr. App. R. 5 CA [at 185] and Cherry's appeal was dismissed [2006] 1 Cr. App. R. 5 CA [at 219]. Differences were attributable to the totality of the evidence.

In Rock's case Lisa Hudson testified that Rock had a temper [2006] 1 Cr. App. R. 5 CA [at 18]. A neighbour heard a young male shouting at the child to 'fucking shut up' shortly before Heidi's death [2006] 1 Cr. App. R. 5 CA [at 19]. Dr Cary, a pathologist, found a number of superficial bruises on Heidi's body and bruising within the scalp over the back of the head and bleeding around the optic nerve [2006] 1 Cr. App. R. 5 CA [at 24].

In Cherry's case Dr Whitwell conducted the post mortem and found two bruises at the back of the head and five small areas of bruising higher up. The five bruises were consistent with pressure from fingers. It was highly unlikely that the injuries could have been caused by Sarah falling, although not impossible [2006] 1 Cr. App. R. 5 CA [at 38]. Mr Flint, a surgeon, described the five small bruises as indicative of being held and the two bruises suggested a blow. It was very unlikely this was caused by a fall [2006] 1 Cr. App. R. 5 CA [41].

Broaching admission the Commission suggest that, under their proposal, the triad's hypothesis would be analysed and empirical evidence considered (Law Com 325; 8.27). The prosecution would have had to show the hypothesis was supported by sufficient observational data and, or, simulations (Law Com 325; 8.28). There would need to be appropriate research with control data (Law Com 325; footnote 44).

The Commission note that NAHI's research base has been described as an inverted pyramid 'with a very small database (most of it poor-quality original research, retrospective in nature, and without appropriate control groups)' (Law Com 325; 8.25). The Commission also assert that 'the hypothesis underpinning the diagnosis had been insufficiently scrutinised or supported by empirical research to justify the **strong** [emphasis added] opinion evidence founded on it' (Law Com 325; 1.7). The Commission conclude first that the judge 'would not have permitted the prosecution to seek a conviction **solely** [emphasis added] on the basis that the infant exhibited the triad' (Law Com 325; 8.30). Second, 'the judge would not have allowed prosecution experts to give opinion evidence that, standing alone, the triad of injuries was certain proof [emphasis added] of non-accidental trauma' (Law Com 325; 8.30). Finally, '[t]he expert opinion evidence in support of the prosecution assertion... would have been modified or weakened to reflect the uncertainties associated with the hypothesis' (Law Com 325; 8.29).

The triad of injuries are sufficiently scientific to pass the first limb for admission, objective reliability. Again, the Commission's proposal seeks simply to restrain the certainty with which experts testify. This restraining of certainty has the effect that the triad cannot substantiate a conviction alone. This relates to the Commission's final limb of admission that conclusions cannot be certain given the limitations of the scientific evidence.

For practical reasons the Commission is correct to allow admission despite weaknesses in the evidence base. The difficulty, as Gage LJ in *Harris* noted, is that there is no scientific method for correlating the force used and the severity of damage caused, as scientists cannot experiment on living children [2006] 1 Cr. App. R. 5 [at 76]. Although the Commission refer to control groups this is not feasible in the context of dead infants.

The Commission's conclusion, concerning the triad, accords with a large body of literature. In *Harris* it was shown medical opinion, whilst accepting the triad is not an 'infallible tool' for

diagnosis, accepts the triad is consistent with NAHI [2006] 1 Cr. App. R. 5 CA [at 69]. The Royal College of Pathologists consider the triad rises prima facie suspicion of mechanical trauma including vigorous shaking (Royal College of Pathologists Meeting 10 December 2009). The Crown Prosecution Service has published guidelines on NAHI cases (Non Accidental Head Injury Cases [NAHI] formerly referred to as Shaken Baby Syndrome [SBS]) Prosecution Approach 24th March 2011). In the context of trials involving the triad practical responses have been implemented more rapidly than law reform. The key is that regulatory bodies keep disciplines under review and can assist judges.

Conclusion on *Dallagher and Harris*.

Brief analysis has suggested that limb one, objective assessment of a discipline, is pitched somewhat low based upon the Commission's analysis. A doubtful hypothesis need not elicit exclusion. Subjectivity is no bar to admission. Poor data, and research, does not preclude admission. Insufficient data does not justify exclusion. An inverted pyramid of small, poor quality, retrospective research without control groups does not negate admission.

Diluting limb one, to such an extent, means exceptionally few forensic disciplines need be excluded as 'objectively' unreliable. In order to become inadmissible, on the grounds of objective unreliability, the discipline may be so glaringly unreliable that common sense may suffice to exclude, rather than, any complex assessment of scientific method.

In one sense this approach has merit. The author's prior concerns stemmed from the difficulty of taxonomy and defining 'good' and 'bad' science (Wilson, 2010). The Forensic Science Service, perhaps the largest supplier of forensic services, did not support the Law Commission's proposal due to the difficulty in furnishing judges with sufficient scientific knowledge (Law Com 325; 3.20). The Commission's final paper was extremely helpful in clarifying the pitch of the proposal. As limb one, objective reliability, is applied in such flexible terms definitional concerns are largely abrogated and science need not be assessed in any degree of depth in relation to admissibility.

A distinct issue arises. During consultation Associate Professor O'Brian commented that virtually all areas of forensic science, except DNA, have dubious scientific pedigrees (Law Com 325; 1.18). If correct, it is not readily apparent that implementing the Commission's proposal will lead to exclusion of such evidence under limb one. The concern then becomes one of sufficiency of impact, rather than, difficulty of interpretation. During consultation Professor O'Brian astutely noted that *Daubert* (1993) 509 US 579 has not been rigorously applied in criminal cases in the United States (Expert Evidence Consultation Responses 1.133). The curative impact of the proposal may be overstated unless the admission criteria are strictly interpreted. The Commission's examples suggest, correctly in the author's opinion, that testimony will not be assessed in an overly draconian sense. It would seem that provided conclusions are sufficiently weak most forms of forensic testimony shall remain admissible. It has been noted that tying admissibility to the strength of the expert's opinion may present judges with challenges, especially where there is significant evidence and the opinion contains qualifications (Editorial, 2011, 432).

The logistics of determining the permissible certainty of conclusion may, in some circumstances, be challenging. First, the expert's report must indicate, prior to trial, exactly how the expert intends to testify. If the report is expressed in overly confident terms this will

elicit objection. The expert may, in turn, moderate their language. When negotiating the permissible degree of certainty, with which the expert may express themselves, it is important this is not perceived, by the defendant, as the expert being advised how to have their testimony received into court.

The mechanics are also difficult. The degree of certainty permissible is a legal standard, but the legal standard is determined by scientific analysis. First, an expert is called because the judge and jury lack competence in a particular discipline. The judge then advises the expert that they cannot testify, in such concrete terms, as this is unscientific. The judge does this from a position of relative ignorance, as compared to the expert, and perhaps without reading the scientific evidence. Having advised the expert the judge then listens to the expert's testimony in order to be educated. Naturally this process may, in some cases, be simple. In other cases this process may be highly complex. Educating judges to consider terminology in loose terms is to be welcomed. To require this as a statutory test may place an onerous burden upon trial judges.

Clark (Sally) (No. 2) [2003] 2 FCR 447 CA

The Commission note that the miscarriage in *Clark (Sally) (No 2)* [2003] 2 FCR 447 CA occurred, primarily due to a failure to disclose test results' (Law Com 325; 8.13). Disclosure is now robustly managed by laws (Criminal Procedure and Investigations Act 1996 ss 1 to 21), rules (Criminal Procedure Rules Part 22; Part 33), guidelines (AG Guidelines on Disclosure of Information in Criminal Proceedings), policies (CPS Disclosure Manual) and protocols (The Court of Appeal's Protocol for the Control and Management of Unused Material in the Crown Court; The Protocol for the Provision of Advance Information, Prosecution Evidence and Disclosure of Unused Material in the Magistrates' Courts; The Protocol for the Control and Management of Heavy Fraud and other Complex Cases). Any miscarriage attributable to failure of disclosure will not be due to an absence of law but, rather, poor implementation of strategies in place. Lawyers must ensure disclosure and not become side-tracked by a multiplicity of rules governing experts.

In *Clark* [2003] 2 FCR 447 CA there was also a problem with unreliable statistical evidence. The eminent paediatrician, Professor Meadow, erroneously testified that there was a 1 in 73 million chance of two natural cot deaths in the same family [2003] 2 FCR 447 CA [at 96]. During consultation the Hon Theodore R Essex pointed out that it should have been obvious that the statistical evidence was outside the professor's expertise. He suggested carefully specifying expertise to show the expert's correct remit (Expert Evidence Consultation Responses 1.24). This accords with the current common law that requires that the expert has 'acquired by study or experience sufficient knowledge of the subject to render his opinion of value': *Stubbs* [2006] EWCA Crim 2312 [at 45] CA; *Leo Sawrij v North Cumbria Magistrates' Court* [2010] 1 Cr App R 22 [at 16] QBD.

In *Reed and Reed* [2010] 1 Cr App R 23 CA Thomas L.J. undertook a detailed assessment of the specific qualifications, experience and expertise of the expert witnesses (Valerie Tomlinson [81]; Dr Budowle [9] [101]; Professor Jamieson [104-110]). Thomas L.J was extremely restrictive as to what discipline was within an expert's field of expertise.

In *Weller* [2010] EWCA Crim 1085 CA Dr Bader possessed a first class degree from the University of Oxford and was also a Doctor of Philosophy of that university [2010] EWCA

Crim 1085 CA [at 24]. Whilst receiving such an eminently qualified expert Thomas L.J remarked:

we do hope that the courts will not be troubled in future...by people who have no practical experience in the field and therefore cannot contradict or bring any useful evidence to bear on issues that are not always contained in scientific journals [2010] EWCA Crim 1085 CA [38].

There is evidence that, at common law, appeal judges are assessing who may be admitted as an expert, and how their expertise will be received. The common law, properly enforced, should address the problem of experts testifying outside their expertise. Advocates, and trial judges, may be better served by analysing Law Reports rather than reading statutes which purport to teach about scientific method.

The Commission conclude that, had their proposal been in place, Professor Meadow would 'probably have been prevented from giving an opinion on the statistical likelihood of multiple SIDS deaths' (Law Com 325; 8.15). The investigation into the statistic 1 in 73 million would have revealed little evidence to support it and he 'almost certainly' would not have been permitted to provide this testimony (Law Com 325; 8.19).

Perhaps, *Clark (Sally) (No 2)* [2003] 2 FCR 447 CA may be simplified and strengthened. In terms of strengthening pathologists should simply not be permitted to provide generic calculations of probability. In terms of simplifying the statistics were drawn from a report. The report clearly stated that it did not provide statistical information that would enable diagnosis of an unnatural death in an individual case as it did not take account of possible familial incidence of factors:

When a second SIDS death occurs in the same family, in addition to careful search for inherited disorder, there must always be a very thorough investigation of the circumstances— though it would be inappropriate to assume maltreatment was always the cause [2003] 2 FCR 447 CA [at 101].

Rather than analysing the scientific foundation, for the calculation of probability, all that was required was a thorough reading of the report.

***Cannings* [2004] EWCA Crim 1 CA**

Cannings [2004] EWCA Crim 1 CA also concerned the death of infant children. Angela Cannings had four children. Three of these children Gemma, Jason, and Matthew regrettably died in infancy [2004] EWCA Crim 1 CA [at 1]. The defendant was convicted of two counts of murder, count one relating to Jason and count two relating to Matthew [2004] EWCA Crim 1 CA [at 2].

The cause of death was asserted to be Sudden Infant Death Syndrome (SIDS). The court noted:

No underlying condition for every death categorised as SIDS has been identified. The critical point of each such death is that it is indeed unexplained, and that its cause or causes, although natural, is or are as yet unknown [2004] EWCA Crim 1 CA [at 9].

In SIDS it remains unknown why the infant's breathing stopped. One explanation may be smothering but there may also be natural explanations [2004] EWCA Crim 1 CA [at 9]. Expert witnesses approach SIDS in one of two ways. The first approach is to see whether any natural cause of death may be identified. If a natural cause cannot be ascertained the rarity of such occurrences elicits an inference that the deaths resulted from deliberate harm. The second approach is to proceed on the basis that if there is nothing to explain the deaths they remain unexplained [2004] EWCA Crim 1 CA [at 10].

Judge L.J. concluded that care is needed not to allow the rarity of an event, standing on its own, to be subsumed into an assumption that the infants were deliberately killed, or to disregard the defendant's explanation of death [2004] EWCA Crim 1 CA [177]. If a parent suffers the tragedy of having two or more children die this is not indicative of murder or manslaughter in the absence of alternative cogent evidence. This now represents the position both at common law and under the Commission's proposal if implemented (Law Com 325; 8.23).

The Commission assert that the defence would challenge reliability on the ground it was insufficiently supported by data generated by sound empirical research (Law Com 325; 8.22). This challenge may, however, fail given that the Commission's final paper highlights that evidence remains admissible even in the absence of sound empirical research. A perhaps clearer, and simpler, route to exclusion is that expert testimony is only required, and permitted, on matters outside the jury's expertise. Pathologists cannot draw conclusions on the 'common sense' assumption that multiple deaths are unlikely and so there must have been foul play as such reasoning is limited purely to jurors. Such evidence fails the current common law prerequisite tests for admission.

Cannings raises an interesting question concerning genetics. A consultant clinical geneticist considered there may be a family trait responsible for the family deaths [2004] EWCA Crim 1 CA [at 31]. At trial this conclusion was contradicted on the basis of the number of unaffected members of the family [2004] EWCA Crim 1 CA [31]. This point was complicated as Mrs Cannings's uncle had a child who died suddenly aged eight months. This death may, or may not, have been regarded as a SIDS [2004] EWCA Crim 1 CA [31]. Post-trial further infant deaths were identified but, upon close examination, it was not apparent they were all pertinent. With one child there was a birth certificate, but no corresponding death certificate. In another case the cause of death, in 1931, was "debility since birth" though it remains ambiguous what the doctor meant by this [2004] EWCA Crim 1 CA [at 32]. The study of genetics is scientific and has research, and data, in support. The difficulty is that science in the forensic context differs greatly from science in the laboratory context. A leading editorial exposes the disagreement between academics and forensic practitioners:

Forensics has developed largely in isolation from academic science, and has been shaped more by the practical needs of the criminal-justice system than by the canons of peer-reviewed research...many academics look at techniques such as fingerprint analysis or hair- and fibre-matching and see a disturbing degree of methodological sloppiness. In their view, forensic examiners have a poor empirical basis for estimating error rates, and they use protocols that don't fully take into account the possibility of unconscious investigator bias... Many academics are also perturbed to see newer techniques, such as DNA analysis of extremely small samples...being pressed into service before the results and interpretations have been adequately

validated for forensic use. Forensic scientists, meanwhile, are often resentful of academics who speak high-mindedly of proper procedures now, decades after standard operating procedures have been put in place.’ (*Nature*, 2010, 325).

Laboratory genetics may be highly scientific with cogent evidence in support. Research, however, can only show how certain samples react in specified circumstances. A trial often occurs because the exact circumstances are unknown. It is, subsequently, always debatable as to how relevant research is to a particular case. It is for this reason that the Commission is correct to pitch their requirement for research at such a low threshold. If research does not accord precisely with the current circumstances then its usefulness becomes debatable.

Conclusion

The Commission’s proposal theoretically permits challenges to opinion evidence at the admissibility stage. The Commission accept that, in the majority of trials, their guidelines need not be raised. If raised the Commission’s guidelines will be interpreted in flexible terms. Outright exclusion will apply to an exceptionally small number of cases, if any. The Commission’s proposal largely concerns the semantics used by the expert, rather than, admission of the discipline per se.

In this context, The Academy of Experts are correct to argue that the existing common law standard of ‘sufficient reliability’ should be enforced, rather than, passing new laws (Law Com 325; 3.20). The Commission’s proposals may, in a limited number of cases, potentially confuse the grounds for excluding scientific evidence. It is suggested that a detailed reading of the evidence, together with a rigorous application of current common law tests for admission, provide a clearer means for exclusion. The Commission’s criteria may provide helpful guidance to aid the judges’ discretion at common law without the need for the straightjacket of making them law.

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